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| 10/735,725      | 12/16/2003  | Tsunenori Yamamoto   | 503.39221CX1        | 3672             |

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EXAMINER

PIZIALI, JEFFREY J

ART UNIT PAPER NUMBER

2629

DATE MAILED: 06/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|   |                                      |  |  |
|---|--------------------------------------|--|--|
| <b>Advisory Action</b><br><b>Before the Filing of an Appeal Brief</b> | <b>Application No.</b><br>10/735,725 | <b>Applicant(s)</b><br>YAMAMOTO ET AL. |  |
|   | <b>Examiner</b><br>Jeff Piziali      | <b>Art Unit</b><br>2629                |  |

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 17 April 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 6 months from the mailing date of the final rejection.  
 b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### NOTICE OF APPEAL

2. ☒ The Notice of Appeal was filed on 16 December 2005. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

#### AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
 (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
 (b) ☐ They raise the issue of new matter (see NOTE below);  
 (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
 (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
 5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
 6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
 7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
 The status of the claim(s) is (or will be) as follows:  
 Claim(s) allowed: \_\_\_\_\_.  
 Claim(s) objected to: \_\_\_\_\_.  
 Claim(s) rejected: 1-20.  
 Claim(s) withdrawn from consideration: 21 and 22.

#### AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
 9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
 10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

#### REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.  
 12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). \_\_\_\_\_.  
 13. ☐ Other: \_\_\_\_\_.



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Continuation of 11. does NOT place the application in condition for allowance because: Applicants' arguments filed 17 April 2006 have been fully considered but they are not persuasive. Firstly, the applicants contend the 35 U.S.C. 112, first paragraph rejection is in error, because, "Applicant's drive circuit [Figs. 1 & 6; 310] is Applicant's claimed 'illumination control means' " (see Page 13 of the 'Statement of Substance and Response' filed 17 April 2006); and therefore the instant specification discloses an "illumination control means for controlling an illumination start time and an illumination 'on' time of each of the illumination areas of the illumination unit in response to a result of the comparison of a new display data with a previous display data" as claimed in claim 1. However, the examiner respectfully disagrees.

Regarding the first inventive embodiment, the "Lighting Control Signal for Illumination Unit" is clearly illustrated in Figures 1, 2, and 6 as directly connecting the "Lighting Control Circuit for Illumination Unit" [Figs. 1 & 2; 120] to the "Drive Circuit for Illumination Unit" [Figs. 1 & 6; 310].

The applicants admit the image comparison signal is produced by the "Data Emphasis Operational Circuit" [Fig. 2; 112] (see Page 13, Lines 9-10 of the 'Statement of Substance and Response' filed 17 April 2006). Furthermore, that same image comparison signal output from the "Data Emphasis Operational Circuit" [Fig. 2; 112] is directly connected to nothing except the "Timing Adjusting Circuit" [Figs. 1 & 2; 130]. As would be recognized by one having ordinary skill in the art at the time of invention, it is physically and electrically impossible for the image comparison signal output from the "Data Emphasis Operational Circuit" [Fig. 2; 112] to control the "Drive Circuit for Illumination Unit" [Figs. 1 & 6; 310]. The circuitry making possible what the applicants are claiming is simply not present in the instant specification.

The applicants point to a teaching from the original specification as lending support for the disputed subject matter (see Page 13, Lines 11-22 of the 'Statement of Substance and Response' filed 17 April 2006). However, this section of the specification actually contradicts what the applicants are arguing. The instant specification states, "the drive circuit 310 for the illumination unit 300 can light the individual areas with their own different illumination start time and illumination 'on' time in response to a control signal supplied from the display controller" (see Page 12, Lines 10-13 of the instant specification).

The display controller contains the aforementioned "Lighting Control Circuit for Illumination Unit" [Figs. 1 & 2; 120], which is itself directly connected to the "Drive Circuit for Illumination Unit" [Figs. 1 & 6; 310]. Neither the instant illustrations nor the written description anywhere teaches the image comparison signal produced by the "Data Emphasis Operational Circuit" [Fig. 2; 112] playing any role whatsoever in controlling the operation of either the "Lighting Control Circuit for Illumination Unit" [Figs. 1 & 2; 120] or the "Drive Circuit for Illumination Unit" [Figs. 1 & 6; 310]. The "Data Emphasis Operational Circuit" [Fig. 2; 112] affects display signals sent to the liquid crystal display [Fig. 1; 200]. However, the "Data Emphasis Operational Circuit" [Fig. 2; 112] fails to have any bearing on what the "Illumination Unit" [Fig. 1; 300] is doing.

The applicants additionally state, "the Office Action [mailed 16 June 2005] comments have erroneously focused in on Applicant's second (Fig. 8) embodiment, whereas the above-mentioned FIGS./text explicitly teach Applicant's claimed limitations" (see Page 14, Lines 16-18 of the 'Statement of Substance and Response' filed 17 April 2006). The examiner hereby takes this statement as an implicit election of the applicants' first inventive embodiment. All claims drawn to any other independent and distinct inventive embodiments should be withdrawn, so as to prevent a burdensome search and examination.

Even though the applicants take issue with the examiner broaching the topic of the second embodiment in an earlier Office Action, the applicants also contradictorily now argue in support of the second embodiment by contending, "The illumination lighting controller [Fig. 8; 122] performs the comparison of the previous display data and the new display data with each other" (see Page 15, Lines 1-2 of the 'Statement of Substance and Response' filed 17 April 2006). Despite the above contention, the applicants are incapable of pointing to any section of the original disclosure which directly supports their current position that the "Illumination Lighting Controller" [Fig. 8; 122] performs the comparison of the previous display data and the new display data.

The applicants quote several sections of text from page 14 of the instant specification (see Page 15, Lines 8-21 of the 'Statement of Substance and Response' filed 17 April 2006). However, there exists no teaching on page 14 or any other page of the instant specification that says the "Illumination Lighting Controller" [Fig. 8; 122] performs a comparison of previous display data with new display data. The sections of the specification quoted by the applicants merely explain that the "Illumination Lighting Controller" [Fig. 8; 122] is supplied with image data, and that illumination start and 'on' times "change in response to the display data" (see Page 14, Lines 16-19 of the instant specification). This is hardly considered a teaching of comparison between previous display data and new display data.

Regarding the second inventive embodiment, the applicants contend the "new display data" and the "previous display data" are compared in the "Illumination Lighting Controller" [Fig. 8; 122] (see Pages 14-15 of the 'Statement of Substance and Response' filed 17 April 2006). However, the examiner respectfully disagrees. As evidenced in Embodiment 2's "Display Controller" [Fig. 8; 100], the "Lighting Control Circuit for Illumination Unit" [Fig. 8; 120] remains utterly independent from the image comparison signal output from the "Data Emphasis Operational Circuit" [Fig. 8; 112] (see also Pages 13-15 of the instant specification).

Additionally, the applicants contend the 35 U.S.C. 112, second paragraph rejection is in error, because the term "substantially identical" is definite. However, again, the examiner must respectfully disagree. The term "substantially identical" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is unclear how similar time integral values and visual sensation values must be before they would be considered "substantially identical" by one skilled in the art. The examiner recognizes that the term "substantially" when

properly used, may be acceptably applied in claim language. However, this is not the case here.

The applicants argue, "given that inventors/USPTO/court recognize that it is nearly impossible (e.g., because of manufacturing tolerances, calculation limitations, etc.) to make something 'identical,' the word 'substantially' is very commonly used, and widely accepted, in many patented claims to account for acceptable variation" (see Page 17, Last Paragraph of the 'Statement of Substance and Response' filed 17 April 2006).

Far be it for this humble examiner to quibble with such distinguished luminaries as listed above, however the examiner must respectfully note that the term "widely accepted" would appear to suggest that the term "substantially identical" isn't always accepted claim language. Furthermore, in this instant case, the applicants are seeking to claim "substantially identical" time integral values. The examiner believes is quite easily possible to have two identical values. Here's just one example:  $2 = 2$ .

If the applicants continue to press to keep "substantially identical" subject matter in the claims, they are respectfully invited to declare the precise range of tolerances, limitations, and error which comprise the "substantial" part of "substantially identical." For the official record, is it the applicants' position that  $2 = 2.01$  or  $2 = 2.001$  or  $2 = 2.0001$ ?

Next, the applicants state, "The 35 USC § 102 (sic) rejection of Claims 1-20 stand unpatentable over Okumura et al. (US 6,115,018 A) in view of Chen (US 5,592,193 A) is respectfully traversed. Such rejection has been made obsolete by the present clarifying amendments to the claims, and accordingly, traversal arguments are not appropriate at this time" (see Page 18, Lines 7-10 of the 'Statement of Substance and Response' filed 17 April 2006). The examiner is unaware of any claim amendments in the 'Statement of Substance and Response' filed 17 April 2006. As such, the examiner will respectfully refrain from commenting on whether he concurs with applicants' admission that "traversal arguments are not appropriate at this time." However, it should be noted that if the applicants have indeed newly amended the claims, then the 'Statement of Substance and Response' (filed 17 April 2006) is either non-compliant for providing an improper copy of the claims and/or should not be entered for proposing new issues, requiring additional search and consideration. Additionally, it should be noted that claims 1-20 have been rejected under 35 USC § 103(a), not "35 USC § 102," as argued by the applicants.

Finally, the applicants contend the cited prior art of Okumura et al. and Chen neglect teaching comparison of a prior art image together with a present image, and then adjusting both of an LCD's illumination start/on times responsive to a result of the comparison. However, the examiner respectfully disagrees.

Okumura discloses a drive means [Fig. 3; 21 & 25] including data emphasis means for comparing new display data supplied from the means for supplying data [Fig. 3; RGB Signal] to be displayed with previous display data supplied from the means for supplying data to be displayed, and emphasizing and converting the new display data to designated display data in response to a result of the comparison and the supplied data (see Column 1, Lines 18-36 and Column 7, Line 60 - Column 9, Line 13).

Additionally, Chen discloses an illumination unit [Fig. 3; 64] including a plurality of illumination areas [Fig. 3; 64a-j] for illuminating a liquid crystal display part [Fig. 3; 62]; and an illumination control means [Fig. 3; 66] for controlling an illumination start time and an illumination "on" time of each of the illumination areas of the illumination unit in response to a response of the liquid crystal display part (see Column 4, Line 23 - Column 5, Line 6).

Okumura and Chen are analogous art because they are from the shared field of driving liquid crystal displays. Thus, it would have been obvious to one skilled in the art at the time of invention to use Chen's backlight circuitry and synchronization method with Okumura's liquid crystal apparatus and comparison result, so as to provide a clear, bright image for display.

The applicants contend Okumura is correcting voltage and not "start/on times"; and further does not teach timing control. However, the examiner respectfully counters that present claim language merely speaks of "controlling an illumination start time and an 'illumination 'on' time" (see Claim 1, Lines 18-19) -- correcting "start/on times" has not been claimed. Furthermore, while Okumura indisputably compares new and old display data, Okumura has not been relied upon as teaching such "controlling an illumination start time and an 'illumination 'on' time" subject matter. Instead, Chen has been relied upon as teaching controlling an illumination start time and an illumination 'on' time (see Column 4, Line 23 - Column 5, Line 6).

The applicants next contend Chen "does not teach adjusting both of an LCD's illumination start/on times responsive to a result of the comparison" (see Page 20, Lines 12-13 of the 'Statement of Substance and Response' filed 17 April 2006). However, while Chen indisputably controls start/on times, Chen has not been relied upon as teaching comparing between new and old display data. Instead, Okumura has been relied upon as teaching comparing new display data supplied from the means for supplying data [Fig. 3; RGB Signal] to be displayed with previous display data supplied from the means for supplying data to be displayed, and emphasizing and converting the new display data to designated display data in response to a result of the comparison and the supplied data (see Column 1, Lines 18-36 and Column 7, Line 60 - Column 9, Line 13).

The applicants accuse the examiner of ignoring "major deficiencies" with respect to the applied references (see Page 20, Lines 14-16 of the 'Statement of Substance and Response' filed 17 April 2006). However, the examiner respectfully disagrees. These supposed "major deficiencies" are little more than a complaint that neither 35 USC § 103(a) reference in and of itself teaches every instant claim limitation. The examiner respectfully reminds the applicants that despite their erroneous belief that claims 1-20 have been rejected under "35 USC § 102" (see Page 18, Line 7 of the 'Statement of Substance and Response' filed 17 April 2006); in point of fact, claims 1-20 have been rejected under 35 USC § 103(a). And when combined, the applied references teach each and every limitation currently being claimed by the applicants. By such reasoning, rejection of the claims is deemed necessary, proper, and thereby maintained at this time.